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(FILE 'HOME' ENTERED AT 08:13:01 ON 26 APR 2002)

INDEX 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 08:13:10 ON 26 APR 2002

SEA GLYCOSYLTRANSFERASE

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4585	FILE PASCAL
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              212   FILE WPINDEX
L1               QUE GLYCOSYLTRANSFERASE
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     FILE 'PASCAL, CAPLUS, EMBASE, JICST-EPLUS, SCISEARCH, BIOSIS, MEDLINE'
     ENTERED AT 08:15:11 ON 26 APR 2002
L2             5 S L1 AND (DIACYLGLYCEROL(W)GLYCOSYLTRANSFERASE)
L3             1 DUP REM L2 (4 DUPLICATES REMOVED)
L4           256 S L1 AND (SUBTILIS OR AUREUS)
L5            68 S L4 AND (ISOLA? OR PURIF?)
L6            14 S L5 AND (CDNA OR CLONE)
L7             6 DUP REM L6 (8 DUPLICATES REMOVED)
L8            54 DUP REM L5 (14 DUPLICATES REMOVED)
L9            69 S L1 AND PROCESSIVE
L10           29 DUP REM L9 (40 DUPLICATES REMOVED)

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L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:377238 CAPLUS
DOCUMENT NUMBER: 122:182005
TITLE: Cloned DNA encoding a UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase and acceptor peptides for the enzyme
INVENTOR(S): Elhammer, Ake P.; Homa, Fred L.
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9426906	A2	19941124	WO 1994-US2552	19940317
WO 9426906	A3	19960613		
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9466632	A1	19941212	AU 1994-66632	19940317
EP 698103	A1	19960228	EP 1994-915336	19940317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
EP 726318	A1	19960814	EP 1996-104017	19940317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09501044	T2	19970204	JP 1994-525397	19940317
US 5910570	A	19990608	US 1997-967508	19971111

PRIORITY APPLN. INFO.:
US 1993-63186 19930514
EP 1994-915336 19940317
WO 1994-US2552 19940317
US 1995-602830 19951113

AB The present invention relates to a method for the **isolation** and expression of a **glycosyltransferase** enzyme for use in the synthesis of oligosaccharide or polysaccharide structures on glycoproteins, glycolipids, or as free mols. The gene coding for the enzyme N-acetylgalctosaminyltransferase and the polypeptide sequence of the acceptor peptide for the N-acetylgalactosaminyltransferase were **isolated** and used for the control of protein glycosylation. Thus, the title enzyme was **isolated** from bovine colostrum; its **cDNA** was **isolated** and characterized by std. techniques. A secreted, sol. form of the enzyme was engineered in which the sequences coding for the cytoplasmic and membrane-spanning domains of the full-length **cDNA** (141 nucleotides) were replaced with sequences that code for the honeybee melittin signal peptide and five linker amino acids (78 nucleotides). Wild-type and sol. enzymes were cloned and expressed in Sf9 cells. Acceptor peptides included PPASTSAPG and PPASSSAPG were glycosylated by the enzyme with Vmax/Km values of 301 and

L7 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
ACCESSION NUMBER: 1997:40940 CAPLUS
DOCUMENT NUMBER: 126:85444
TITLE: Cloning of the gene for monogalactosyldiacylglycerol synthase and its evolutionary origin
AUTHOR(S): Shimojima, Mie; Ohta, Hiroyuki; Iwamatsu, Akihiro; Masuda, Tatsuru; Shioi, Yuzo; Takamiya, Ken-ichiro
CORPORATE SOURCE: Fac. Biosci. Biotechnol., Tokyo Inst. Technol., Yokohama, 226, Japan
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (1997), 94(1), 333-337
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Monogalactosyldiacylglycerol (MGDG) synthase (UDPgalactose:1,2-diacylglycerol 3-.beta.-D-galactosyltransferase; EC 2.4.1.46) catalyzes formation of MGDG, a major structural lipid of chloroplast. We cloned a **cDNA** for the synthase from cucumber **cDNA** library. The full-length **cDNA clone** was 2142 bp, and it contains a 1575-bp open reading frame encoding 525 aa. The open reading frame consists of the regions for a mature protein (422 aa; Mr of 46,552) and transit peptide to chloroplast (103 aa). Although the mol. wt. of mature protein region matched that **purified** from cucumber cotyledons, it was quite different from those **purified** from spinach (.+-.20 kDa) reported by other groups. The mature region of the protein was expressed in Escherichia coli as a fusion protein with glutathione S-transferase. The expression in E. coli showed that the protein catalyzed MGDG synthesis very efficiently. Therefore, we concluded that the **cDNA** encodes MGDG synthase in cucumber. In addn., the deduced amino acid sequence of the MGDG synthase **cDNA** showed homol. with MurG of Bacillus **subtilis** and E. coli, which encode a **glycosyltransferase** catalyzing the last step of peptidoglycan synthesis in bacteria. This sequence homol. implies that the machinery of chloroplast membrane biosynthesis is evolutionarily derived from that of cell wall biosynthesis in bacteria. This is consistent with the

L7 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
ACCESSION NUMBER: 2000:446377 CAPLUS
DOCUMENT NUMBER: 134:38681
TITLE: Novel processive and nonprocessive **glycosyltransferases** from Staphylococcus **aureus** and Arabidopsis thaliana synthesize glycoglycerolipids, glycophospholipids, glycosphingolipids and glycosylsterols
AUTHOR(S): Jorasch, Petra; Warnecke, Dirk C.; Lindner, Buko; Zahringer, Ulrich; Heinz, Ernst
CORPORATE SOURCE: Institut fur Allgemeine Botanik, Hamburg, D-22609, Germany
SOURCE: European Journal of Biochemistry (2000), 267(12), 3770-3783
CODEN: EJBCAI; ISSN: 0014-2956
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A processive diacylglycerol glucosyltransferase has recently been identified from Bacillus **subtilis**. Now we report the cloning and characterization of two other genes coding for diacylglycerol **glycosyltransferases** from Staphylococcus **aureus** and Arabidopsis thaliana; only the S. **aureus** enzyme shows processivity similar to the B. **subtilis** enzyme. Both **glycosyltransferases** characterized in this work show unexpected acceptor specificities. We describe the **isolation** of the ugt106B1 gene (GenBank accession no. Y14370) from the genomic DNA of S. **aureus** and the ugt81A1 **cDNA** (GenBank accession no. AL031004) from A. thaliana by PCR. After cloning and expression of S. **aureus** Ugt106B1 in Escherichia coli, SDS-PAGE of total cell exts. showed strong expression of a protein having the predicted size of 44 kDa.

Thin-layer chromatog. anal. of the lipids extd. from the transformed E. coli cells revealed several new glycolipids and phosphoglycolipids not present in the controls. These lipids were **purified** from lipid exts. of E. coli cells expressing the S. **aureus** gene and identified by NMR and mass spectrometry as 1,2-diacyl-3-[O-.beta.-D-glucopyranosyl]-sn-glycerol, 1,2-diacyl-3-[O-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-.beta.-D-glucop yrano-syl]-sn-glycerol, 1,2-diacyl-3-[O-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-.beta.-D-glucop yranosyl-(1.fwdarw.6)-O-.beta.-D-glucopyranosyl]-sn-glycerol, sn-3'-[O-.beta.-D-glucopyranosyl]-phosphatidylglycerol and sn-3'-[O-(6"'-O-acyl)-.beta.-D-glucopyranosyl-(1"'.fwdarw.6")-O-.beta.-D-glucopyranosyl]-sn-2'-acyl-phospha-tidylglycerol. A 1,2-diacyl-3-[O-.beta.-D-galactopyranosyl]-sn-glycerol was **isolated** from exts. of E. coli cells expressing the ugt81A1 **cDNA** from A. thaliana. The enzymic activities expected to catalyze the synthesis of these compds. were confirmed by in vitro assays with radioactive substrates. Expts. with several of the above described glycolipids as 14C-labeled sugar acceptors and unlabeled UDP-glucose as glucose donor, suggest that the ugt106B1 gene codes for a processive UDP-glucose:1,2-diacylglycerol-3-.beta.-D-glucosyltransferase, whereas ugt81A1 codes for a non-processive diacylglycerol galactosyltransferase. As shown in addnl. assays with different lipophilic acceptors, both enzymes use diacylglycerol and ceramide, but Ugt106B1 also accepts glucosyl ceramide as well as

L10 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:626343 CAPLUS
DOCUMENT NUMBER: 131:254319
TITLE: **Processive glycosyltransferases** of Bacillus and Staphylococcus and their use in glycolipid synthesis
INVENTOR(S): Wolter, Frank P.; Jorasch, Petra; Heinz, Ernst; Zahringer, Ulrich
PATENT ASSIGNEE(S): GVS Gesellschaft fur Erwerb und Verwertung Landwirtschaftlicher Pflanzensort, Germany; Forschungszentrum Borstel
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9949052	A2	19990930	WO 1999-DE857	19990325
WO 9949052	A3	20000302		
W: AU, CA, CZ, HU, PL, SI, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19819958	A1	19990930	DE 1998-19819958	19980505
CA 2329898	AA	19990930	CA 1999-2329898	19990325
AU 9941301	A1	19991018	AU 1999-41301	19990325
EP 1066388	A2	20010110	EP 1999-924670	19990325
R: AT, BE, CH, DE, DK, FR, GB, LI, NL, SE, IE				

PRIORITY APPLN. INFO.: DE 1998-19813017 A 19980325
DE 1998-19819958 A 19980505
WO 1999-DE857 W 19990325

AB The title enzymes and their use are disclosed. Thus, the ypfP gene of B. subtilis and of S. aureus were expressed in Escherichia coli. Both enzymes utilized UDP-glucose, and catalyzed addn. of up to 4 glucosyl moieties in .beta.(1.fwdarw.6) linkage to the substrates. The Bacillus enzyme used diacylglycerol, monoglucosyl diacylglycerol, diglucosyl diacylglycerol and alkyl-.alpha./.beta.-D-glucopyranosides as acceptor. The Staphylococcus enzyme could also use sterols and sterylglucosids as

L10 ANSWER 12 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R) DUPLICATE 8
ACCESSION NUMBER: 2001:125370 SCISEARCH
THE GENUINE ARTICLE: 377QY
TITLE: A conserved active site and topological organization in glucosylceramide synthase and **processive** beta-**glycosyltransferases**
AUTHOR: Marks D L (Reprint); Dominguez M; Pagano R E
CORPORATE SOURCE: Mayo Clin & Mayo Fdn, Dept Biochem & Mol Biol, Rochester, MN 55905 USA; Mayo Clin & Mayo Fdn, Rochester, MN 55905 USA
COUNTRY OF AUTHOR: USA
SOURCE: MOLECULAR BIOLOGY OF THE CELL, (DEC 2000) Vol. 11, Supp. [S], pp. 313A-313A. MA 1625.
Publisher: AMER SOC CELL BIOLOGY, 8120 WOODMONT AVE, STE 750, BETHESDA, MD 20814-2755 USA.
ISSN: 1059-1524.
DOCUMENT TYPE: Conference; Journal
LANGUAGE: English
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     (FILE 'HOME' ENTERED AT 09:09:16 ON 26 APR 2002)

     FILE 'PASCAL, CAPLUS, EMBASE, JICST-EPLUS, SCISEARCH, BIOSIS, MEDLINE,
     BIOTECHNO' ENTERED AT 09:09:52 ON 26 APR 2002
L1         23150 S GLYCOSYLTRANSFERASE
L2             0 S L1 AND MONGLYCOSYLDIACYLGLYCEROL
L3             0 S L1 AND DIGLYCOSYLDIACYLGLYCEROL
L4             0 S L1 AND TRIGLYCOSYLDIACYLGLYCEROL
L5             0 S L1 AND TETRAGLYCOSYLDIACYLGLYCEROL
L6           220 S L1 AND GLYCOSYLCERAMIDE OR MONOGLYCOSYLCERAMIDE
L7            85 DUP REMOVE L6 (135 DUPLICATES REMOVED)
L8        246475 S L7 AND SUBTILIS OR AUREUS
L9            24 S L7 AND (SYNTHE? OR BIOSYNTH?)
L10          294 S L1 AND (SUBTILIS OR AUREUS)
L11            8 S L10 AND PROCESSIVE
L12            3 DUP REM L11 (5 DUPLICATES REMOVED)
L13           27 S L10 AND (PLANT OR THALIANA)
L14           17 DUP REM L13 (10 DUPLICATES REMOVED)
L15          189 DUP REM L10 (105 DUPLICATES REMOVED)
L16            3 S L1 AND (STERYL GLYCOSIDE)
L17            3 DUP REM L16 (0 DUPLICATES REMOVED)
L18            6 S L1 AND (GLYCOSYL PHOSPHATIDYLGLYCEROL) OR (DIGLYCOSYL
PHOSPHA
L19            1 DUP REM L18 (5 DUPLICATES REMOVED)
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L9 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:596536 CAPLUS
DOCUMENT NUMBER: 97:196536
TITLE: **Glycosylceramide synthesis** in the developing spinal cord and kidney of the twitcher mouse, an enzymically authentic model of human Krabbe disease
AUTHOR(S): Kodama, Soichi; Igisu, Hideki; Siegel, Donald A.; Suzuki, Kunihiko
CORPORATE SOURCE: Saul R. Korey Dep. Neurol., Albert Einstein Coll. Med., Bronx, NY, 10461, USA
SOURCE: J. Neurochem. (1982), 39(5), 1314-18
CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
AB UDP-galactose:ceramide galactosyltransferase (I) activity was assayed in the spinal cord and kidney of the neurol. mutant twitcher mouse, which is an enzymically authentic model of human globoid cell leukodystrophy (Krabbe disease). The activity in the spinal cord was essentially normal during the early myelination period up to 15 days. There was a slight redn. at 20 days. At 25 and 33 days, I activity was drastically reduced compared to controls. In contrast, the I activity in the kidney of twitcher mice remained normal throughout the developmental stages examd. Activity of the control enzyme UPD-glucose:ceramide **glycosyltransferase** was also normal in both the spinal cord and kidney. Thus, redn. of galactosylceramide **synthesis** occurs in the central nervous system secondarily to the pathol. alteration of the oligodendroglia. No such redn. occurs in the kidney, at least for the last step of galactosylceramide **synthesis**. Reduced **synthesis** as the result of metabolic regulation in the presence of the catabolic is therefore unlikely to be the cause of the lack of abnormal accumulation of galactosylceramide in the kidney of patients with

L14 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4
ACCESSION NUMBER: 1992:54173 CAPLUS
DOCUMENT NUMBER: 116:54173
TITLE: Partial purification, photoaffinity labeling, and properties of mung bean UDP-glucose:dolicholphosphate glucosyltransferase
AUTHOR(S): Drake, Richard R., Jr.; Kaushal, Gur P.; Pastuszak, Irena; Elbein, Alan D.
CORPORATE SOURCE: Health Sci. Cent., Univ. Texas, San Antonio, TX, 78284, USA
SOURCE: Plant Physiol. (1991), 97(1), 396-401
CODEN: PLPHAY; ISSN: 0032-0889
DOCUMENT TYPE: Journal
LANGUAGE: English

AB UDP-glucose-dolichol phosphate glucosyltransferase (I) was purified 734-fold from Triton X-100 solubilized mung bean (Phaseolus **aureus**) microsomes. Partially purified I had a broad optimum of activity at pH 6.0-7.0 and was maximally stimulated with 10 mM MgCl2. The Km for UDP-glucose was detd. as 27 .mu.M, and the Km for dolichol phosphate was 2 .mu.M. Using the UDP-glucose photoaffinity analog, 5-azido-UDP-glucose, a polypeptide of 39 kDa was identified on SDS-PAGE as the catalytic subunit of the enzyme. Photoinsertion into this 39-kDa polypeptide with [32P]5-azido-UDP-glucose was saturable, and was maximally protected with the native substrate, UDP-glucose. 5-Azido-UDP-glucose behaved competitively with UDP-glucose in enzyme assays, and upon photolysis inhibited activity in proportion to its concn. This study represents the 1st subunit identification of a **plant glycosyltransferase** involved in the biosynthesis of the lipid-linked oligosaccharides that are precursors of N-linked

L14 ANSWER 12 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:265475 BIOSIS
DOCUMENT NUMBER: PREV199598279775
TITLE: Drosophila UDP-glucose:glycoprotein glucosyltransferase: Sequence and characterization of an enzyme that distinguishes between denatured and native proteins.
AUTHOR(S): Parker, Carol G.; Fessler, Liselotte I.; Nelson, Robert E.;
Fessler, John H. (1)
CORPORATE SOURCE: (1) Molecular Biol. Inst., Dep. Biol., Univ. California, Los Angeles, CA 90024-1570 USA
SOURCE: EMBO (European Molecular Biology Organization) Journal, (1995) Vol. 14, No. 7, pp. 1294-1303.
ISSN: 0261-4189.
DOCUMENT TYPE: Article
LANGUAGE: English

AB A Drosophila UDP-glucose:glycoprotein glucosyltransferase was isolated, cloned and characterized. Its 1548 amino acid sequence begins with a signal peptide, lacks any putative transmembrane domains and terminates in a potential endoplasmic reticulum retrieval signal, HGEL. The soluble, 170 kDa glycoprotein occurs throughout Drosophila embryos, in microsomes of highly secretory Drosophila Kc cells and in small amounts in cell culture media. The isolated enzyme transfers (14C)glucose from UDP-(14C)Glc to several purified extracellular matrix glycoproteins (laminin, peroxidasin and glutactin) made by these cells, and to bovine thyroglobulin. These proteins must be denatured to accept glucose, which is bound at endoglycosidase H-sensitive sites. The unusual ability to discriminate between malfolded and native glycoproteins is shared by the rat liver homologue, previously described by A.J. Parodi and coworkers. The amino acid sequence presented differs from most **glycosyltransferases**. There is weak, though significant, similarity with a few bacterial lipopolysaccharide glycotransferases and a yeast protein Kre5p. In contrast, the 56-68% amino acid identities with partial sequences from genome projects of Caenorhabditis elegans, rice and Arabidopsis suggest widespread homologues of the enzyme. This glucosyltransferase fits previously proposed hypotheses for an endoplasmic reticular sensor of the

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:487405 CAPLUS
DOCUMENT NUMBER: 91:87405
TITLE: Subcellular distribution of membrane-bound **glycosyltransferases** from pea stems
AUTHOR(S): Duerr, Mathias; Bailey, David S.; MacLachlan, Gordon
CORPORATE SOURCE: Dep. Biol., McGill Univ., Montreal, PQ, Can.
SOURCE: Eur. J. Biochem. (1979), 97(2), 445-53
CODEN: EJBCAI; ISSN: 0014-2956
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Particulate and subcellular membrane prepns. from growing regions of etiolated pea stems catalyzed the transfer of sugars from UDP-glucose-14C and GDP-mannose-14C to a variety of endogenous lipid, glycoprotein, and polysaccharide acceptors. Glycolipids were fractionated and identified by chromatog. on DEAE-cellulose and silica gel. They included neutral components, e.g. **steryl glycosides**, and polar lipids, comprising polyprenylmonophospho-monosaccharides and polyprenyldiphospho-oligosaccharides. High-mol.-wt. material was partially hydrolyzed with Pronase or acidic CNBr to solubilize glycoproteins and products bound to proteins, and to sep. these from insol. polysaccharide. Pea membranes with densities at which endoplasmic reticulum equilibrates in linear sucrose gradients contained most of the recovered capacity of glycosylation of endogenous polyprenyl monophosphate. When dolichyl phosphate was added to the membrane prepns., it was readily glycosylated in the presence of lysophosphatidylcholine but there was no indication that dolichylphospho-monosaccharide served as an intermediate for synthesis of other products. In contrast, glycosyl transfer to endogenous neutral lipids, polyprenyl diphosphate, and polymeric products occurred to a limited extent in the endoplasmic reticulum region and was most extensive in membranes which equilibrate at higher densities, i.e. in regions contg. Golgi and possibly plasma membrane vesicles. Thus, glycosylation of polymeric products occurs throughout the pea endomembrane system, with polyprenylmonophospho-monosaccharide available to act as an

L9 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:519319 CAPLUS
DOCUMENT NUMBER: 123:144443
TITLE: **Syntheses** of .alpha.-, .beta.-**monoglycosylceramides** and four diastereomers of an .alpha.-galactosylceramide
AUTHOR(S): Morita, Masahiro; Natori, Takenori; Akimoto, Kohji; Osawa, Tatsushi; Fukushima, Hideaki; Koezuka, Yasuhiko
CORPORATE SOURCE: Pharmaceutical Res. Lab., Kirin Brewery Co. Ltd., Takasaki, 370-12, Japan
SOURCE: Bioorg. Med. Chem. Lett. (1995), 5(7), 699-704
CODEN: BMCLE8; ISSN: 0960-894X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To examine antitumor activities of **monoglycosylceramide**, we **synthesized** .alpha.-, .beta.-galactosylceramides and .alpha.-, .beta.-glucosylceramides, e.g. I, which have the same ceramide portion, and four diastereomers of the ceramide portion in an .alpha.-

L9 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:974309 CAPLUS
DOCUMENT NUMBER: 124:105232
TITLE: Inhibitors of glycosphingolipid **biosynthesis**
AUTHOR(S): Platt, Frances M.; Butters, Terry, D.
CORPORATE SOURCE: Glycobiology Institute, University of Oxford, Oxford, OX1 3QU, UK
SOURCE: Trends Glycosci. Glycotechnol. (1995), 7(38), 495-511
CODEN: TGGLEE; ISSN: 0915-7352
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English/Japanese

AB A review with 61 refs. Glycosphingolipids (GSLs) are ubiquitous components of Eukaryotic cell surfaces and contribute to the glycocalyx, along with other cell surface glycoconjugates. They play a role in recognition events and are exploited as receptors by no. of infectious disease agents. Their expression changes with cell transformation and if they are incompletely catabolized pathol. results, leading to the GSL lysosomal storage disease. However, the role(s) played by the majority of GSL species remain obscure. One approach for probing their functions is to study the effects of GSL depletion using specific inhibitors of GSL **biosynthesis**. Two structurally distinct classes of GSL **biosynthesis** inhibitors have been characterized to date, ceramide analogs and N-alkylated imino sugars. Both types of compd. inhibit the first step in GSL **biosynthesis**, namely **glycosyltransferase** catalyzed **synthesis** of **glycosylceramide**. This results in the failure to **synthesis** all **glycosylceramide** derived GSL species. GSL depletion using these inhibitors is well tolerated in vitro and in vivo and they offer a novel therapeutic strategy for the treatment of the glycosphingolipid storage diseases, and are invaluable reagents for studying GSL functions.

L9 ANSWER 4 OF 24 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
ACCESSION NUMBER: 1996-0073148 PASCAL
COPYRIGHT NOTICE: Copyright .COPYRGT. 1996 INIST-CNRS. All rights reserved.
TITLE (IN ENGLISH): Immunostimulatory and antitumor activities of **monoglycosylceramides** having various sugar moieties
AUTHOR: MOTOKI K.; MORITA M.; KOBAYASHI E.; UCHIDA T.; AKIMOTO K.; FUKUSHIMA H.; KOEZUKA Y.
CORPORATE SOURCE: Kirin Brewery Co., Ltd, pharmaceutical res. lab., Takasaki-shi, Gunma 370-12, Japan
SOURCE: Biological & pharmaceutical bulletin, (1995), 18(11), 1487-1491, 18 refs.
ISSN: 0918-6158
DOCUMENT TYPE: Journal
BIBLIOGRAPHIC LEVEL: Analytic
COUNTRY: Japan
LANGUAGE: English
AVAILABILITY: INIST-18096, 354000055239650060

AB Ten kinds of **monoglycosylceramides** (MonoCers), having the same ceramide portion and different sugar moieties, were **synthesized** and their immunostimulatory and antitumor activities were examined. The manner of combination between sugar and ceramide has been demonstrated to affect the manifestation of immunostimulatory and resultant antitumor activities of MonoCers, and in the case of D-MonoCers having the D-sugar, .alpha.-D-MonoCers (sugar combined to ceramide in an .alpha.-configuration) show stronger activities than .beta.-D-MonoCers. Furthermore, the form of sugar, not the furanose-form but the pyranose-form, and the 2"- and 4"-hydroxyl groups of the pyranose-form of sugar, seemed to play an important role in the manifestation of the

L9 ANSWER 3 OF 24 PASCAL

ACCESSION NUMBER: 1997-0242932 PASCAL

TITLE (IN ENGLISH): **Synthesis** of n-acetylglucosaminyl- and N-acetylgalactosaminylceramides as cerebroside analogs and their anti-human immunodeficiency virus type 1 activities

AUTHOR: IKEDA K.; ASAHARA T.; ACHIWA K.; HOSHINO H.

CORPORATE SOURCE: School of Pharmaceutical Sciences, University of Shizuoka, Yada 52-1, Shizuoka 422, Japan; Department of Hygiene, Gumma University School of Medicine, Maebashi, Gumma 371, Japan

SOURCE: Chemical and pharmaceutical bulletin, (1997), 45(2), 402-405, 8 refs.
ISSN: 0009-2363 CODEN: CPBTAL

DOCUMENT TYPE: Journal

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: Japan

LANGUAGE: English

AVAILABILITY: INIST-4123, 354000064707600310

AB **Monoglycosylceramide** derivatives containing mimicks of ceramide were **synthesized** as cerebroside analogs from D-glucosamine or D-galactosamine derivatives and N-benzyloxycarbonyl-L-serine myristylamide by using trimethylsilyl trifluoromethanesulfonate (TMSOTf) as a promoter. The **synthesized** sulfated glycolipids show

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DUPLICATE

ACCESSION NUMBER:	1997-0336298 PASCAL
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TITLE (IN ENGLISH):	Structural features of ether lipids in the archaeobacterial thermophiles Pyrococcus furiosus, Methanopyrus kandleri, Methanothermus fervidus, and Sulfolobus acidocaldarius
AUTHOR:	SPROTT G. D.; AGNEW B. J.; PATEL G. B.
CORPORATE SOURCE:	Institute for Biological Sciences, National Research Council of Canada, 100 Sussex Drive, Ottawa, ON K1A 0R6, Canada
SOURCE:	Canadian journal of microbiology, (1997), 43(5), 467-476, 35 refs. ISSN: 0008-4166 CODEN: CJMIAZ
DOCUMENT TYPE:	Journal
BIBLIOGRAPHIC LEVEL:	Analytic
COUNTRY:	Canada
LANGUAGE:	English
SUMMARY LANGUAGE:	French

A

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L17 and (cDNA or clone)	41

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L18	L17 and (cDNA or clone)	41	L18
L17	L15 and (purif$$$$ or isola$$$$)	49	L17
L16	L15 and processive	0	L16
L15	l1 and (subtilis or aureus)	55	L15
L14	glycosyl phosphatidylglycerol or diglycosyl phosphatidylglycerol	0	L14
L13	glycosylphosphatidylglycerol or diglycosylphosphatidylglycerol	0	L13
L12	steryl glycoside	1	L12
L11	diglycosylceramide	9	L11
L10	L8 same (biosynthe$$ or synthes$)	5	L10
L9	L8 and (biosynthe$$ or synthes$)	15	L9
L8	glycosylceramide	58	L8
L7	tetraglycosyldiacylglycerol	0	L7
L6	triglycosyldiacylglycerol	0	L6
L5	diglycosyldiacylglycerol	3	L5
L4	monoglycosyldiacylglycerol	0	L4
L3	L1 and diacylglycerol	5	L3
L2	L1 same diacylglycerol	1	L2
L1	glycosyltransferase	992	L1

END OF SEARCH HISTORY